

WHAT IS CLAIMED IS:

1 1. A method for controlling network digital broadcasting service, comprising steps of:
2 directly requesting, at a client, a digital broadcasting server for a session connection, and
3 establishing a session by receiving a confirmation message for the session connection from the
4 digital broadcasting server; and

5 directly requesting, at the client, the digital broadcasting server for a channel change, and
6 changing a channel by receiving a confirmation message for the channel change from the digital
7 broadcasting server.

1 2. The method according to claim 1, further comprising:
2 receiving, at the client, a message for checking a status of the client from the digital
3 broadcasting server, and directly delivering a confirmation message for checking the status of the
4 client to the digital broadcasting server.

1 3. The method according to claim 1, further comprising:
2 directly requesting, at the client, the digital broadcasting server for a session termination and
3 terminating a session by receiving a confirmation message for the session termination from the
4 digital broadcasting server.

1 4. The method according to claim 1, further comprising:
2 directly requesting, at the digital broadcasting server, the client for a session termination and
3 terminating a session by receiving a confirmation message for the session termination from the

4 client.

1 5. The method according to claim 1, further comprising the step of directly receiving,
2 at the client, a session termination request from the digital broadcasting server, and terminating a
3 session if the client cannot transmit a response to the session termination request from the digital
4 broadcasting server.

1 6. The method according to claim 1, wherein a protocol between the client and the
2 digital broadcasting server is a TCP/IP (Transmission Control Protocol/Internet Protocol).

1 7. The method according to claim 1, wherein a message for requesting the session
2 connection is a SessionSetupRequest message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a Session ID (Identification) field, a Reserved
4 field, a Client ID field, and a Server ID field, and the SessionSetupRequest message is transmitted
5 from the client to the digital broadcasting server.

1 8. The method according to claim 1, wherein a message for requesting the channel
2 change is a ProgramSelectRequest message including: a DSM-CC (Digital Storage Media-Command
3 and Control) message header field, a Session ID (Identification) field, a STB (Set Top Box) status
4 field, a broadcast ProgramId field, and a Client ID field, and the ProgramSelectRequest message is
5 transmitted from the client to the digital broadcasting server.

1 9. The method according to claim 2, wherein the message for checking the status of the

2 client is a ServerStatusRequest message including: a DSM-CC (Digital Storage Media-Command
3 and Control) message header field, a Reason field, a statusType field, a resourceNumber field for
4 showing a number of a resource whose status is wanted to be known, a Reserved field, and a client
5 ID field, and the ServerStatusRequest message is transmitted from the digital broadcasting server
6 to the client.

1 10. The method according to claim 3, wherein a message for requesting a session
2 termination is a ClientReleaseRequest message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a session ID field, a Reason field, and a
4 ClientID field, and the ClientReleaseRequest message is transmitted from the client to the digital
5 broadcasting server.

1 11. The method according to claim 4, wherein a message for requesting a session
2 termination is a ServerReleaseRequest message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a session ID field, a Reason field, and a
4 ClientID field, and the ServerReleaseRequest message is transmitted from the digital broadcasting
5 server to the client.

1 12. The method according to claim 1, wherein the confirmation message for confirming
2 the session connection is a SessionSetupConfirm message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a Session ID (Identification) field, a response
4 field, and a Server ID field, and the SessionSetupConfirm message is transmitted from the digital
5 broadcasting server to the client.

1 13. The method according to claim 1, wherein the confirmation message for confirming
2 the channel change is a ProgramSelectConfirm message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a Session ID (Identification) field, a response
4 field, a broadcast ProgramId field, and a Client ID field, and the ProgramSelectConfirm message is
5 transmitted from the digital broadcasting server to the client.

1 14. The method according to claim 2, wherein the confirmation message for confirming
2 the status of the client is a ServerStatusConfirm message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a Response field, a statusType field, a
4 resourceNumber field for showing a number of a resource whose status is wanted to be known, a
5 resourceStatus field, and a client ID field, and the ServerStatusConfirm message is transmitted from
6 the client to the digital broadcasting server for confirming the status of the client.

1 15. The method according to claim 3, wherein the confirmation message for confirming
2 a session termination is a ClientReleaseConfirm message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a session ID field, a response field, and a
4 ClientID field, and the ClientReleaseConfirm message is transmitted from the digital broadcasting
5 server to the client.

1 16. The method according to claim 4, wherein the confirmation message for confirming
2 a session termination is a ServerReleaseConfirm message including: a DSM-CC (Digital Storage
3 Media-Command and Control) message header field, a session ID field, a response field, and a

4 ClientID field, and the ServerReleaseConfirm message is transmitted from the client to the digital
5 broadcasting server.

1 17. A system controlling a network digital broadcasting service comprises:

2 a client and a digital broadcasting server, the client directly requesting the digital
3 broadcasting server for a session connection, and establishing a session by receiving a confirmation
4 message for the session connection from the digital broadcasting server; and

5 the client directly requesting a program change from the digital broadcasting server and
6 receiving a confirmation message from the digital broadcasting server, when the digital broadcasting
7 server confirms the channel change.

1 18. The system according to claim 17, further comprising:

2 the client periodically receiving a message from the digital broadcasting server for checking
3 a status of the client, and directly delivering a client status confirmation message, indicative of the
4 status of the client, to the digital broadcasting server.

1 19. The system according to claim 17, further comprising:

2 the client directly requesting the digital broadcasting server for a session termination and
3 terminating a session by receiving a confirmation message for the session termination from the
4 digital broadcasting server.

1 20. The system according to claim 17, further comprising:

2 the digital broadcasting server directly requesting the client for a session termination and

3 terminating a session by receiving a confirmation message for the session termination from the
4 client.